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ABSTRACT

During the 1974-75 school year, reading laboratories were established in Dade County, Florida senior high schools as an approach to the remediation, development, or acceleration of the reading skills of senior high school pupils. This evaluation sought to determine the reading program's potential for improving the reading skills of senior high school pupils. Another goal was to relate differing program strategies to the achievement outcomes realized by pupils in various programs. Pre- and posttest reading achievement scores were compared with grade level, school location, and instructional approaches. Although the program is not generally producing gains sufficient to transform deficient skills into average or better skills, the laboratories have shown sufficient promise of affecting reading abilities--particularly comprehension--that their continued usage is recommended. The comparison of pre- and posttest scores of laboratory participants in the reading skill areas of comprehension, vocabulary, syllabication, sound discrimination, and blending were indicative of program impact. Significant gains were realized on various subtests at all grade levels. More statistically significant gains were realized in grades nine and ten than in grades eleven and twelve. (Author/MV)

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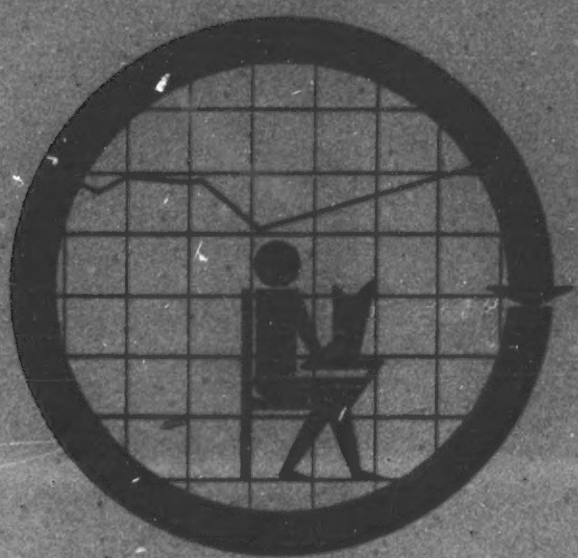
DADE COUNTY PUBLIC SCHOOLS, MIAMI, FLA

1975-76 PRODUCT EVALUATION OF THE SENIOR HIGH SCHOOL READING LABORATORY PROGRAMS



TM006 405

April, 1977

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SUMMARY OF PRINCIPAL FINDINGS AND RECOMMENDATIONS

During the 1974-75 school year, reading laboratories were established in the senior high schools as an approach to the remediation, development, or acceleration of the reading skills of senior high school pupils. Last year a study was made of the degree of program implementation and information was collected to produce this study of program effects.

Although the program is not generally producing gains sufficient to transform deficient skills into average or better skills, the laboratories have shown sufficient promise of affecting reading abilities—particularly comprehension—that their continued usage is recommended.

The comparison of pre and posttest scores of laboratory participants in the reading skill areas of comprehension, vocabulary, syllabication, sound descrimination, and blending were indicative of program impact.

Gains of some nature on varying subtests were apparent in the analyses, regardless of whether the analyses were made of funding sources, grade levels or the instructional approaches chosen.

Significant gains were realized on various subtests at all grade levels. More statistically significant gains were realized in grades nine and ten than in the grades eleven and twelve.

Because of the existence now of the Basic Skills Pupil Progression Plan, eleventh and twelfth grade students with non-acceptable reading skills must be placed in some program for the improvement of those skills. While the evaluation demonstrated relatively weaker impact for such pupils than it demonstrated for younger pupils, its continued usage will be mandated by the new progression plan. Unfortunately, the program has not improved the reading comprehension skills to a sufficient level for the students of these upper grade levels--even after participation. In order to enhance effects at this level, it is recommended that greater stress be placed on direct reading comprehension skills.

The High Intensity Learning System is used as the instructional approach in many of the laboratories. In an effort to identify the most effective way to improve reading comprehension, the gains made on this subtest were analyzed for pupils in varying levels of usage of this particular approach. It was found that substantial gains were realized at all levels of usage. The gains were nearly identical for those pupils in classes in which the High Intensity Learning System was used as prescribed, modified or not used at all. This would suggest that the use of this approach is effective at the senior high school level. Earlier studies at the elementary and junior high school level, however, did not find this system to be an effective approach to improved reading comprehension, so any derived evaluative support for usage of the system is relegated to the senior high school level only.

In further considering the advantages or the disadvantages of the High Intensity Learning System, it is important to note that the approaches developed by individual schools or teachers produced equal gains. Considering the relatively high cost of this system, therefore, it is recommended that before additional installations are purchased, consideration should be given to locally developed approaches.

DADE COUNTY PUBLIC SCHOOLS

Division of Finance

1975-76 PRODUCT EVALUATION OF THE SENIOR HIGH SCHOOL READING LABORATORY PROGRAMS

Prepared by

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April, 1977

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NATURE OF THE PROGRAM

An administrative review of the nature of the reading laboratory programs in operation in Dade County at the senior high level during the 1975-76 school year was presented in May, 1976 as the first part of a two-part evaluation study. This report of program effects is the second part of the study.

For the purposes of this study, a reading laboratory was defined as a facility apart from regular curricular classrooms to which pupils moved for reading instruction with at least one instructor in attendance. in the laboratory, the instructional intent was (1) remedial, a program for pupils requiring highly individualized or small group instruction to acquire functional skills, (2) developmental, a program providing instruction in the refinement of previously learned skills and the introduction of new skills, or (3) acceleration, a program of advanced instruction for pupils reading adequately or for those preparing for college entrance. Instruction was provided utilizing the High Intensity Learning System, Dade Systems Reading, P. K. Yonge Laboratory and/or other approaches (commercial, or teacher developed). The reading laboratory programs were funded by Title I, ESAA, special reading laboratory allocations (Program 9581), or diversions from the school's regular funds.

The various funding sourced programs were analyzed independently, conjointly, and by-school to identify program differences and similarities among the approaches to senior high reading instruction. A list of the programs, defined by funding source and included in these analyses, is as follows:

Title I. A compensatory education program funded through the Title I of the Elementary and Secondary Education Act (ESEA)that provides supplemental instructional opportunities in basic skills for disadvantaged pupils who score in stanines one and two on the reading subtest of the Stanford Achievement Test.

ESAA. A program funded through the Emergency School Aid Act to provide additional reading instructional opportunities for pupils identified as reading below grade level. The target population is 120 pupils at designated schools.

Program 9581. A program funded by Dade County Schools, "Program 9581" monies are allocated to provide a reading laboratory teacher, an aide and materiel to establish a reading laboratory program in each senior high school.

Local School Funds. A program funded through the school's regular teacher/materiel allocation at the discretion of the school administrators to meet the reading needs within the school.

DESCRIPTION OF THE EVALUATION

The major purpose of this evaluation was to determine the reading program potential for improving the reading skills of senior high school pupils. Another intent of this analysis was to relate differing program strategies to the achievement outcomes realized by pupils in various funded programs. The procedure consisted of pre and posttest comparisons of reading achievement scores and how they related to grade level, school, and instructional approaches.

In the fall of 1975, information was collected from school principals and reading laboratory teachers to provide the basis for the process evaluation of the programs. These sources also provided information concerning program intent and instructional approaches to be used in the study of program outcomes. At that time a general sample of program participants was chosen to provide information for the product evaluation of program effects. In each senior high school, the second or sixth period class taught of each kind of reading program in each senior high school, as distinguished by funding source, served as a general sample of participants.

In the fall of 1975, the Stanford Diagnostic Reading Test Level II, Form X was administered to these pupils as a pre-test. In the spring of 1976, Form W of this same test was administered to the same pupils as a post-test. Pre and posttest results were analyzed to determine achievement changes in each of five diagnostic reading subtests, entitled Comprehension, Vocabulary, Syllabication, Sound Discrimination and Blending.

In addition to this diagnostic testing, the 1975 scores of a sample of participants on the county administered Stanford Achievement Test were used to predict their achievement in 1976. Comparisons of their predicted achievement and their actual 1976 achievement in reading comprehension were made to see the degree of growth beyond expectations being produced by the reading programs.

Analyses were made of the relationships between program characteristics and program outcomes using the Comprehension subtest gains as the criterion since reading comprehension is the ultimate objective for the program.

A special analysis was also made of the effects being produced by the dominant instructional approach being used in the laboratories, the High Intensity Learning System. This classroom management system is organized around 500 behavioral objectives basic to reading competence. A pupil's individual reading needs are defined and appropriate activities are prescribed to fill those needs in a highly individualized program. Pupils were selected from three kinds of laboratories, those in which teachers used the High Intensity system as prescribed, those in which the teachers used the system with various modifications, and those in which the teachers did not use the High Intensity system. The average gain scores of these pupils were compared for these differing levels of High Intensity usage.

The results of these analyses and the conclusions drawn from them appear in the following sections.

CONCLUSIONS AND RECOMMENDATIONS

The comparison of test scores obtained when students first began their reading laboratory instruction to those obtained at the conclusion of their participation in laboratories was indicative of program impact.[1] Gains of some nature were apparent in the analyses, regardless of whether these analyses were made of funding sources, grade levels or instructional approaches chosen.

Funding Source Results

A general finding was that each program produced statistically significant results, i.e., gains which were substantial enough that they almost certainly did not arise by chance or did not reflect measurement error, in one or more of the subtests of the Stanford Diagnostic Achievement Test.[2]

In the Title I programs, significant gains were obtained on the Comprehension and Blending subtests.

The participants in the ESAA programs showed significant gains on the Comprehension subtest and nearly significant gains on the Vocabulary subtest.

The pupils in the categorically funded 9581 Program showed significant improvement on the Blending subtest.

Programs initiated by individual schools to meet their particular needs produced significant gains in comprehension and blending skills.

Grade Level Results

Significant gains were realized on various subtests at all grade levels. More statistically significant gains were realized in grade nine than at the other levels. These participants made significant gains in comprehension, vocabulary and syllabication.

In grade ten the pupils made significant gains in comprehension and blending.

In grades eleven and twelve significant gains were made on the Blending subtest.

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[1] Footnotes are presented at the conclusion of this report. Please see page 29, footnote number one, for a discussion of program impact potentials versus regression effects.

Reading Comprehension

These gains suggest that reading comprehension was improved, as a consequence of participation in the programs. An examination of the comprehension results of the county-wide Stanford Achievement Test program, however, does not indicate that reading comprehension was improved for the participants. At each grade level and across funding sources the participants did not achieve the growth that was expected. This apparent paradox of positive and negative gains can be explained in part by the fact that the results of the Stanford Achievement Test included the scores of those pupils who participated in the diagnostic pre-testing and possibly not the posttesting. The diagnostic testing results, however, included only those pupils who were administered both the pre-test and the posttest.

Instructional Approach Effects

A special analysis was made of the effects being produced by the instructional approaches being used in the laboratories. The High Intensity Learning System, a relatively expensive individualized prescriptive approach to reading instruction, is used in many of the laboratories. In an effort to identify the most effective way to improve reading comprehension, the gains made on this subtest were analyzed for pupils in varying levels of usage of this particular approach. It was found that substantial gains were realized at all levels of usage. The gains were nearly identical for those pupils in classes in which the High Intensity Learning System was used as prescribed, modified or not used at all. This would suggest that the use of this approach is effective at the senior high school level. Earlier studies at the elementary and junior high school level, however, did not find this system to be an effective approach to improved reading comprehension, so any derived evaluative support for usage of the system is relegated to the senior high school level only.

In further considering the advantages or the disadvantages of the High Intensity Learning System, it is important to note that the approaches developed by individual schools or teachers produced equal gains. Considering the relatively high cost of this system, therefore, it is recommended that before additional installations are purchased, consideration should be given to locally developed approaches.

Two other approaches were in use, the Dade Systems and P.K. Yonge System. Because each was used in only one class, however, no conclusions will be made about their effectiveness at this time.

The laboratories, in general, have shown sufficient promise of affecting reading abilities - particularly Comprehension - that their continued usage is recommended. Because of the existence

now of the Basic Skills Pupil Progression Plan, eleventh and twelfth grade students with non-acceptable reading skills must be placed in some program for the improvement of those skills. While the evaluation demonstrated relatively weaker impact for such pupils than it demonstrated for younger pupils, its continued usage will be mandated by the new progression plan. Unfortunately, the program has not improved the reading comprehension skills to a sufficient level for the students of these upper grade levels--even after participation. In order to enhance effects at this level, it is recommended that greater stress be placed on direct reading comprehension skills.

It is also true that the program is not generally producing reading gains sufficient to transform deficient skills into average or better skills. It is probably unrealistic to expect that such gains could be created after the many years of reading failures the participating students have presented. However, the data suggest that pupils are being released from the program after substantial but insufficient gains have been realized. It may be worthwhile, therefore, for schools to attempt to retain the students for a greater duration in the laboratories in order to potentially improve the reading skills further.

RESULTS

Tables I through V show a series of grade-wise and program outcomes of the 1975-76 High School Reading Laboratories. Tables I and II show differences between expected and actual reading achievement as assessed for students of the various laboratories during the spring, 1976 county-wide standardized achievement test program.

"Expected" achievement levels in those tables are determined through the calculation of average attained achievement scores for various groups of students which achieved a certain score in the previous year. A student's expected score is the average score attained by the group of students he or she came from in the previous year.

"Actual" scores are the average scores actually attained by pupils in the reading laboratories. "Difference" scores are computed by a subtraction of actual scores from the expectancies anticipated for the pupils.

"Percentiles" are scores below which fall the stated percentage of the standardized population for a given grade level. For example, a percentile score of 30 means that the individual receiving this score surpased thirty percent of the group (at the individual's grade level) upon which the test was constructed. Expected, actual and difference scores appearing in Tables I and II are of a percentile nature.

The appearances of negative signs in the difference columns of these tables suggest that the programs were not generally operating to produce reading levels equivalent to those attained by students of similar prior educational attainment who were not being instructed in the laboratories. The actual amounts of deficit shown (when they occur) are probably within chance fluctuations from zero, since percentile deviations of a few points are very much within testing error tolerances. However, the persistence of negative scores is very suggesting that the reading laboratory approach has been insufficient to offset fairly poor reading skills and may, in fact be leading to additional deficits at the senior high level. This suggestion appears to be a paradox, for it will be seen in the diagnostic testing information that positive results do tend to accompany reading laboratory participation. This would be explained in part by the fact that the results of the Stanford Achievement Test include the scores of those pupils who participated in the diagnostic pre-testing and possibly not the posttesting. The diagnostic testing results, however, include only those pupils who were administered both the pre-test and the posttest.

Tables III-V, present the results of the use of the Stanford Diagnostic Reading Test. This test, like the Standard Achievement Test utilized for Table I results, is norm-referenced which allows comparisons to a large national sample of various grade levels. Unlike the Stanford Achievement Test, however, the diagnostic test assesses five specific reading skills; the Stanford Achievement tests the end result of those skills--reading comprehension.

The diagnostic test was administered to pupils when they were introduced to the various reading laboratories and, again, at the end of the year. "Pre-mean" scores are the achieved average levels at the introduction to the programs. These pre-mean scores were subtracted from the averages of the posttest scores to yield gains in performance--in Table II, these are called "difference" scores.

Scores in Tables III-V are stanine units. When the normative group's scores are proportioned into nine equal groups, each group of scores is called a stanine. Lower numbered stanines contain students who demonstrate lesser proficiency in reading performance. The "average" range of performance is a band containing stanines four, five and six.

The statements following Tables I-V contain a school-by-school presentation of achievement gains.

Characteristics of Entering Students

It will be evident from Tables I and II, Pre-mean columns, that students entering the programs generally were demonstrating less than average reading performance, since only a few pupils surpassed an average stanine of four. The table also indicates that the Title I and ESAA laboratories were serving the lowest reading achievers.

Mean Gains of Programs as Distinguished by Funding Source

Table III presents the pre-means and mean gains of the participants as distinguished by funding source. Significant gains in Comprehension were made by the pupils in programs funded by Title I, ESAA and local school allocations. A nearly significant gain on the Vocabulary subtest was made by the participants of the ESAA Program. A significant gain on the Blending subtest was made by the pupils in the Title I, Program 9581 and the locally funded programs.

Mean Gains of Programs as Distinguished by Grade Level

Table IV presents the pre-means and gains of the participants of the programs as distinguished by grade level. Significant gains in comprehension were made by pupils in grades nine and ten. A significant gain was made on the Vocabulary and Syllabication subtest by pupils in grade nine. Significant gains were made on the Blending subtest by pupils in grades ten, eleven and twelve.

Mean Gains as Distinguished by the Instructional Approach

Table V presents comparisons of mean gains as related to the instructional approach used. The use of the High Intensity system as prescribed or modified produced the same increase as a school/teacher developed instructional approach. The Dade systems approach and the P.K. Yonge system represent only one class each using each approach and not across schools. Their results should consequently be considered tentative in their implications for improvement or lack of improvement.

TABLE I

COMPARISONS OF EXPECTED AND ACTUAL STANFORD ACHIEVEMENT READING SCORES FOR SENIOR HIGH READING LABORATORY PARTICIPANTS AS DISTINGUISHED BY GRADE LEVEL

GRADE	NUMBER	EXPECTED READING PERCENTILE	ACTUAL READING PERCENTILE	DIFFERENCE
9	34	20.38	18.44	-1.94
10	135	33.70	31.92	-1.78
11	78	25.53	24.77	-0.76
12	50	24.86	22.02	-2.84

TABLE II

COMPARISONS OF EXPECTED AND ACTUAL STANFORD ACHIEVEMENT READING SCORES FOR SENIOR HIGH READING LABORATORY PARTICIPANTS AS DISTINGUISHED BY FUNDING SOURCE

FUNDING SOURCE	NUMBER	EXPECTED READING PERCENTILE	ACTUAL READING PERCENTILE	DIFFERENCE
TITLE I	51	15.21	14.45	-0.76
ESAA	13	14.76	8.84	-5.92
9581	108	35.70	32.74	-2.96
LOCAL	125	29.23	28.65	-0.58

PRE-MEANS AND GAINS OF PARTICIPANTS
IN PROGRAMS AS DISTINGUISHED BY FUNDING SOURCE
(STANINES)

FUNDING SOURCE

STANFORD DIAGNOSTIC READING SUBTESTS	TITLE I				ESAA				9581				LOCAL SCHOOL FUNDS			
	N	PRE MEAN	DIFFER-ENCE	SD	N	PRE MEAN	DIFFER-ENCE	SD	N	PRE MEAN	DIFFER-ENCE	SD	N	PRE MEAN	DIFFER-ENCE	SD
COMPREHENSION	64	1.7180	.340*	.7056	9	1.2222	2.222*	1.7159	145	3.2345	0.1466	1.5673	86	3.5510	0.430*	1.4796
VOCABULARY	53	1.6030	-0.038	1.0913	10	1.2000	0.7000[1]	1.0593	127	3.3150	-0.2155	1.4792	80	3.0417	0.1875	1.4504
SYLLABICATION	51	2.3520	.098	1.2042	10	2.7000	-0.2000	1.1353	113	3.4752	-0.0882	1.3431	82	3.2195	0.2439	1.5361
SOUND DISCRIMINATION	51	2.2350	.098	1.1533	11	2.2920	0.0909	.8312	116	3.1638	0.1731	1.2956	83	3.3855	0.0120	1.2444
BLENDING	34	2.6470	1.2059*	1.7715	9	3.5550	0.7778	1.3017	93	4.4409	0.7527*	1.6329	82	5.0600	0.480*	1.7524

*This result would have occurred by chance no more than five times in one hundred (p = .05 level).

[1]This result was very nearly significant at the .05 level.

TABLE 17

PRE-MEANS AND GAINS OF PARTICIPANTS
IN PROGRAMS AS DISTINGUISHED BY GRADE LEVEL
(STANINES)

GRADE LEVEL

STANFORD DIAGNOSTIC READING SUBTESTS	GRADE 9				GRADE 10				GRADE 11				GRADE 12			
	N	PRE MEAN	DIFFER-ENCE	SD	N	PRE MEAN	DIFFER-ENCE	SD	N	PRE MEAN	DIFFER-ENCE	SD	N	PRE MEAN	DIFFER-ENCE	SD
COMPREHENSION	29	2.2000	2.966*	1.6143	128	3.3435	0.336*	1.3356	57	3.1667	0.421	1.8703	50	3.3962	0.140	1.4144
VOCABULARY	26	2.0000	3.769*	1.9038	127	3.1128	-0.118	1.3951	62	3.0833	0.000	1.493	50	2.7451	0.260	1.9206
SYLLABICATION	28	2.8333	0.643*	1.0261	116	3.2583	0.0431	1.2880	60	3.2105	0.000	1.4844	51	2.8679	0.392	1.4417
SOUND DISCRIMINATION	30	2.2667	-0.0333	1.1885	119	3.2049	0.1849	1.2147	62	2.7018	0.048	1.2985	51	3.1154	-0.196	1.2652
BLENDING	29	3.4248	-0.035	1.3491	96	4.1735	0.885*	1.8687	40	4.2558	0.625*	1.5963		4.0000	0.759*	1.550

*This result would have occurred by chance no more than five times in one hundred (p = .05 level).

TABLE V

MEAN GAINS IN COMPREHENSION SCORES
OF PARTICIPANTS IN PROGRAMS
AS DISTINGUISHED BY INSTRUCTIONAL APPROACH

(STANINES)

	N	PRE-TEST	DIFFERENCE
High Intensity Learning System	113	1.81	0.41
Modified High Intensity Learning System	88	2.84	0.42
School/Teacher Developed	89	4.69	0.46
Dade Systems	15	2.67	0.07
P.K. Yonge	18	2.83	0.77

PRE-MEANS AND GAINS OF PROGRAMS IN DADE COUNTY SENIOR HIGH SCHOOLS

In September, 1975, one class of each kind of program as distinguished by funding source was administered the Stanford Diagnostic Test as a pre-test. Exceptions to this occurred in those schools in which programs were implemented too late for pre-testing. In May, 1976, or when pupils left the program, they were administered a posttest. In some classes in which pupils were enrolled for relatively short period of times, the instructors considered it inappropriate to administer a posttest.

The pre-means and gains, presented in stanine units, of those pupils who participated in both pre-testing and posttesting in the various senior high schools are as follows:

NORTHEAST AREA

Miami Beach Senior. The pupils scored an average stanine of 1.2 on the pre-test. They were not enrolled at the time of posttesting.

Miami Norland Senior

	9581			
	N	PRE-MEAN	DIFFERENCE	SD
COMPREHENSION	29	2.00	0.97*	1.0516
VOCABULARY	--	--	--	--
SYLLABICATION	--	--	--	--
SOUND DISCRIMINATION	--	--	--	--
BLENDING	--	--	--	--

*This result would have occurred by chance no more than five times in one hundred (p = .05 level).

The laboratory funded by Program 9581 was managed by a teacher certified in reading and one teacher aide. The instructional intent was remedial. The teacher used the High Intensity Learning System with modifications. Pupils in grades 10-12 were assigned to the laboratory. The program served an average of twenty pupils per period, five days per week for indefinite periods of time.

Significant gains were made on the Comprehension subtest.

North Miami Beach Senior. Pupils in the 9581 Program scored in stanine 3 on the pre-test. They were enrolled for one or two quinmesters and did not participate in the posttesting.

North Miami Senior

	9581				LOCAL			
	N	PRE-MEAN	DIFFERENCE	SD	N	PRE-MEAN	DIFFERENCE	SD
COMPREHENSION	15	2.67	0.07	1.9445	16	1.94	0.63*	.8062
VOCABULARY	13	3.31	-0.62	2.3643	14	2.07	.62*	1.1929
SYLLABICATION	12	3.42	0.00	2.2563	--	--	--	--
SOUND DISCRIMINATION	13	2.46	0.46	1.4500[1]	--	--	--	--
BLENDING	9	4.89	1.11	2.3688	--	--	--	--

*This result would have occurred by chance no more than five times in one hundred (p = .05 level).

[1]This result was very nearly significant at the .05 level.

Three locally funded laboratory programs were managed by four English teachers (three full-time and one part-time). The operation of the laboratories was directed by the teacher funded through Program 9581 who was certified in reading. One teacher assistant and two teacher aides were assigned to the laboratories. Pupils in grades 10-12 were assigned to the laboratories. Twenty to twenty-five pupils per period (per teacher) attended the laboratories five days per week for indefinite periods of time.

Two classes participated in the pre and posttesting. The instructor representing the 9581 Program was initiating the Dade County Reading System approach. The instructor representing Local funding used a modification of the High Intensity Reading System approach. Significant gains were made on both the Comprehension and Vocabulary subtests in this latter approach.

NORTHWEST AREA

American Senior. The school was not in operation at the time the data were collected.

Hialeah Senior. The reading program was implemented late and the participants did not participate in the pre and posttesting.

Hialeah-Miami Lakes Senior. The reading program was offered as an elective to pupils for one quinmester. The pupils did not participate in the pre and posttesting.

Miami Carol City Senior. The participants of one locally funded program were pre-tested and scored in stanine 3. The pupils were assigned for one quinmester and did not participate in the post-testing.

NORTH CENTRAL AREA

Miami Central Senior.

	TITLE I			
	N	PRE-MEAN	DIFFERENCE	SD
COMPREHENSION	13	1.38	0.6154*	0.7679
VOCABULARY	13	1.92	0	0.7071
SYLLABICATION	13	1.92	0.4615	0.9674
SOUND DISCRIMINATION	13	2.08	0.1538	1.4632
BLENDING	13	1.69	0.6923*	0.8548

*This result would have occurred by chance no more than five times in one hundred (p = .05 level).

Miami Central Senior. The laboratory funded through the Title I project was managed by two teachers certified in English, a teacher assistant, and a teacher aide. The instructional intent was remedial; both teachers used the High Intensity Learning System as prescribed. Pupils in grades 9 and 10 were assigned to the laboratories. The program served thirty-five to forty pupils per period, five days per week for the entire year.

The group that participated in the testing made significant gains on the Comprehension and Blending subtests.

The pupils in the 9581 Program scored in stanine 4. They were enrolled for one or two quinmesters and did not participate in the posttesting.

Miami Edison Senior

	TITLE I				9581				LOCAL			
	N	PRE-MEAN	DIFFERENCE	SD	N	PRE-MEAN	DIFFERENCE	SD	N	PRE-MEAN	DIFFERENCE	SD
COMPREHENSION	15	2.00	0.13	0.5164	7	3.00	1.43*	1.1339	19	3.05	0.74*	1.1945
VOCABULARY	17	1.53	0.06	1.2485	6	2.83	-0.17	1.3292	17	2.59	0.18	1.4678
SYLLABICATION	14	2.14	0.00	1.1767	7	4.71	-0.86	1.2150	16	3.19	0.13	1.1475
SOUND DISCRIMINATION	14	2.63	-0.07	0.8287	7	3.71	0.29	1.2536	16	3.00	0.25	1.6533
BLENDING	11	3.45	0.45	1.1282	6	5.50	-0.17	0.9832	--	--	--	--

*This result would have occurred by chance no more than five times in one hundred (p = .05 level).

The laboratory funded through the Title I project was managed by three teachers certified in English and two teacher assistants. The instructional intent was remedial, the teachers used the High Intensity Learning System as prescribed. Pupils in grades 9 and 10 were assigned to the laboratory. The program served fifteen to twenty pupils, per period (per teacher), five days per week for the entire year.

The laboratory funded by Program 9581 was managed by a teacher certified in reading, a teacher aide, and two teacher assistants. Additional instruction was provided in the laboratory through local funding. Fourteen English teachers were assigned to the program on a rotating basis. Remedial and developmental instruction was provided. The teachers used a teacher/school developed method of instruction. Pupils in grades 9-12 were assigned to the laboratory. The program served twenty-five to thirty pupils per period (per teacher), five days per week for two quinmesters.

Participants representing the program funded by 9581 and one group locally funded made significant gains on the Comprehension subtest.

Miami Northwestern Senior. The participants of one class funded locally participated in the pre-testing. The pupils scored in stanine 1.5. They were assigned for one or two quinmesters and did not participate in the posttesting.

Miami Springs Senior

	LOCAL			
	N	PRE-MEAN	DIFFERENCE	SD
COMPREHENSION	15	2.67	0.00	0.8452
VOCABULARY	12	2.50	1.00*	1.5374
SYLLABICATION	14	3.07	0.14	1.6104
SOUND DISCRIMINATION	15	3.53	0.27	1.2228
BLENDING	15	3.60	0.73	2.2509

*This result would have occurred by chance no more than five times in one hundred (p = .05 level).

An English teacher funded by Program 9581 served as a team leader and resource person for five locally funded laboratories. These laboratories were managed by eleven part-time English teachers, one teacher assistant and two teacher aides. Pupils in grades 10-12 were assigned to the laboratories.

One remedial class participated in the pre and posttesting. The instructor used the High Intensity Learning System as prescribed. The program served an average of twenty pupils per period, five days per week for the entire year. This class showed significant gains on the Vocabulary subtest.

Three other classes participated in the pre-testing. They scored in stanines 4-6. They were assigned for one quinmester and did not participate in the posttesting.

Miami MacArthur North

	9581				LOCAL			
	N	PRE-MEAN	DIFFERENCE	SD	N	PRE-MEAN	DIFFERENCE	SD
COMPREHENSION	12	2.00	-1.00*	1.5374	10	2.60	-0.01	1.6633
VOCABULARY	16	2.56	-0.69[1]	1.4009	9	2.44	0.11	1.1667
SYLLABICATION	14	1.79	-0.29	1.1387	9	2.78	-0.33	1.4142
SOUND DISCRIMINATION	14	1.93	0.00	0.7071	9	2.22	0.33	1.4142
BLENDING	7	1.71	-0.29	1.2536	8	3.75	-0.13	1.2464

*This result would have occurred by chance no more than five times in one hundred (p = .05 level).

[1]This result was very nearly significant at the .05 level.

A teacher certified in reading and funded by Program 9581 served as a team leader and resource person in two locally funded laboratories. These laboratories were operated by three teachers certified in reading and four teachers certified in English. Two teacher aides were assigned to the laboratories. The instructional intent was remedial and developmental. The teachers used the High Intensity Learning System with modifications. All pupils in grades 10-12 were assigned to the laboratories. The program served approximately ten pupils per period (per teacher), five days per week for the entire year.

Two classes participated in the pre and posttesting, Program 9581 and one locally funded. The participants representing the 9581 program showed a significant decline on the Comprehension subtest and a nearly significant decline on the Vocabulary subtest.

C.O.P.E. Center-North. Due to the indefinite assignment to this center, the pupils did not participate in the testing program.

SOUTH CENTRAL AREA

Coral Gables Senior

	9581			
	N	PRE-MEAN	DIFFERENCE	SD
COMPREHENSION	12	2.33	0.92*	0.7930
VOCABULARY	12	2.33	0.08	1.0836
SYLLABICATION	1	1.00	1.00	--
SOUND DISCRIMINATION	2	1.00	0.00	--
BLENDING	--	--	--	--

*This result would have occurred by chance no more than five times in one hundred (p = .05 level).

The laboratory funded by Program 9581 was managed by a teacher certified in reading. One teacher aide was assigned to the program. The instructional intent was remedial; the teacher used the High Intensity Learning System as prescribed. Pupils in grades 10-12 were assigned to the laboratories. The program served fifteen to twenty pupils per period, five days per week for an indefinite period of time.

Significant gains were made on the Comprehension subtest.

Miami Jackson Senior.

	TITLE I				9581				LOCAL			
	N	PRE-MEAN	DIFFERENCE	SD	N	PRE-MEAN	DIFFERENCE	SD	N	PRE-MEAN	DIFFERENCE	SD
COMPREHENSION	10	2.00	0.40	0.9661	15	2.13	-0.27	0.8837	18	2.83	.777*	3.6103
VOCABULARY	8	1.88	-0.75	1.1650	15	2.27	-0.33	0.8165	18	2.22	.500	1.2485
SYLLABICATION	9	2.56	-0.22	1.4814	15	2.80	-0.33	1.1751	--	--	--	--
SOUND DISCRIMINATION	10	2.30	0.50	1.0801	15	2.13	0.00	1.1339	--	--	--	--
BLENDING	10	3.00	2.70*	2.3594	14	2.86	0.50	1.1602	--	--	--	--

*This result would have occurred by chance no more than five times in one hundred (p = .05 level).

The laboratories funded through the Title I project were managed by two teachers certified in English and three teacher aides (two full-time and one part-time). The instructional intent was remedial; the teachers used the High Intensity Learning System as prescribed. Pupils in grade 10 were assigned to the laboratories. The program served fifteen to twenty pupils per period (per teacher), five days per week for the entire year.

Significant gains were made on the Blending subtest.

The laboratory funded by Program 9581 was managed by a teacher certified in English, a teacher assistant, and two teacher aides. Additional instruction was provided by two English teachers assigned to the program. The instructional intent was remedial; the teachers used the High Intensity Learning System as prescribed. Generally, pupils in grade 10 were assigned to the laboratory; however, a few pupils in grades 11 and 12 were assigned. The program served twenty-five to thirty pupils per period (per teacher), five days per week for the entire year.

A locally funded program was managed by a teacher certified in reading, an English teacher, and a teacher aide. The instructional intent was developmental. The P.K. Yonge model program was used to provide individualized instruction. Only pupils in grade 10 were assigned to the laboratory. The program served approximately twenty pupils per period (per teacher), three days per week for one quinmester.

Significant gains were made on the Comprehension subtest.

Miami Senior

	TITLE I				ESAA				9581			
	N	PRE-MEAN	DIFFERENCE	SD	N	PRE-MEAN	DIFFERENCE	SD	N	PRE-MEAN	DIFFERENCE	SD
COMPREHENSION	15	1.73	0.27	0.5936	9	1.22	2.22*	1.7159	10	1.10	-0.10	0.3162
VOCABULARY	15	1.27	0.20	1.0823	10	1.20	0.70[1]	1.0593	8	1.00	0.13	0.3536
SYLLABICATION	15	2.80	0.07	1.2799	10	2.70	-0.20	1.1353	8	1.88	0.00	1.0690
SOUND DISCRIMINATION	14	2.14	-0.07	1.2067	11	2.27	0.09	0.8312	8	1.63	0.13	0.6409
BLENDING	--	--	--	--	9	3.56	0.78	1.3017	7	2.57	1.00*	1.0000

	LOCAL				LOCAL			
	N	PRE-MEAN	DIFFERENCE	SD	N	PRE-MEAN	DIFFERENCE	SD
COMPREHENSION	15	3.00	0.67	2.0237	24	6.33	0.71*	1.3981
VOCABULARY	15	1.87	0.33	1.1127	24	5.29	-0.21	1.9676
SYLLABICATION	16	2.31	0.56	1.9311	24	4.17	0.38	1.4902
SOUND DISCRIMINATION	16	2.63	-0.38	1.4083	24	4.50	-0.08	0.9743
BLENDING	--	--	--	--	24	6.67	0.21	1.3507

Two laboratory programs funded through the Title I project were managed by two teachers certified in English and two teacher assistants. The instructional intent was remedial; both instructors used the High Intensity Learning System. Pupils in grade 10 were assigned to the laboratories. The programs served approximately fifteen pupils per period (per teacher), five days per week for the entire year.

The laboratory funded through the Emergency School Aid Act (ESAA) was managed by a teacher certified in English and a teacher assistant. The instructional intent was remedial and the teacher used the High Intensity Learning System as prescribed. The majority of the pupils were in grade 11; however, a few pupils in grades 10 and 12 were assigned to the laboratory. The program served fifteen to seventeen pupils per period, five days per week for the entire year.

Significant gains were made on the Comprehension subtest and a nearly significant gain was made on the Vocabulary subtest.

The laboratory funded by Program 9581 was managed by a teacher certified in English and a teacher aide. The instructional intent was remedial; the teacher used the High Intensity Learning System as prescribed. Pupils in grades 10-12 were assigned to the laboratory. The program served approximately twenty pupils per period, five days per week for the entire year.

Significant gains were made on the Blending subtest.

Three locally funded laboratories were managed by three teachers certified in English and one teacher aide. The instructional intent was developmental in two laboratories and instruction in advanced skills was offered in the third. The teachers in the developmental programs used the High Intensity Learning System with modifications. A teacher/school developed system was used in the advanced classes. Pupils in grades 10-12 were enrolled in the laboratories. Each program served twenty to twenty-five pupils per period, five days per week for the entire year.

Pupils in one developmental program and the advanced program participated in the pre and posttesting. The participants of the advanced program made a significant gain on the Comprehension subtest.

SOUTHWEST AREA

Miami Coral Park Senior

	9581			
	N	PRE-MEAN	DIFFERENCE	SD
COMPREHENSION	23	6.90	-0.43	1.7536
VOCABULARY	23	5.50	0.00	1.9069
SYLLABICATION	23	4.70	0.26	1.2142
SOUND DISCRIMINATION	22	5.18	0.18	1.7630
BLENDING	22	6.22	0.86*	2.0306

*This result would have occurred by chance no more than five times in one hundred (p = .05 level).

Miami Coral Park Senior. The laboratory funded by Program 9581 was managed by a teacher certified in reading and one teacher aide. Remedial and developmental instruction were offered. The teacher used a teacher/school developed method of individualized instruction. Only pupils in grade 10 were assigned to the laboratory. The program served an average of thirty pupils per period, three days per week for one quinmester.

A significant gain was made on the Blending subtest.

Miami Killian Senior

	9581			
	N	PRE-MEAN	DIFFERENCE	SD
COMPREHENSION	22	4.41	1.0*	1.5119
VOCABULARY	23	4.17	-0.09	1.2400
SYLLABICATION	22	4.14	-0.05	1.2141
SOUND DISCRIMINATION	23	3.78	0.22	1.0426
BLENDING	28	4.64	1.07*	1.4638

*This result would have occurred by chance no more than five times in one hundred (p = .05 level).

The laboratory funded by Program 9581 was managed by a teacher certified in reading and a teacher aide. Additional instruction was provided in the laboratory through local funding. Four English teachers were assigned to the program (one full-time and three part-time). Remedial and developmental instruction was offered. The teacher used the High Intensity Learning System with modifications. All pupils in grade 10, and a few pupils in grades 11 and 12 were assigned to the laboratory. The program served approximately forty pupils per period, three days per week for one quinmester.

Significant gains were made on the Comprehension and Blending subtests.

South Miami Senior: The participants of Program 9581 scored in stanine 3 on the pre-test. They were assigned to the program for one quinmester and did not participate in the posttesting.

Southwest Miami Senior. The participants of the locally funded program scored in stanine 5 on the pre-test. They were assigned to the program for one quinmester and did not participate in the posttesting.

SOUTH AREA

Miami Palmetto Senior. The participants of the 9581 Program scored in stanines 5 and 6 on the pre-test. The class was offered as an elective for one quinmester. The pupils did not participate in the posttesting.

The participants in the locally funded program scored in stanine 6 and 7 on the pre-test. The class was offered as an elective for one quinmester. The pupils did not participate in the posttesting.

South Dade Senior

	TITLE I				9581				LOCAL			
	N	PRE-MEAN	DIFFERENCE	SD	N	PRE-MEAN	DIFFERENCE	SD	N	PRE-MEAN	DIFFERENCE	SD
COMPREHENSION	11	1.44	.36	0.9244	--	--	--	--	3	3.67	-1.00	1.7321
VOCABULARY	--	--	--	--	14	2.55	0.21	0.8926	3	2.67	-0.33	0.5774
SYLLABICATION	--	--	--	--	14	3.45	-0.50	1.1602	3	3.00	0.33	2.0817
SOUND DISCRIMINATION	--	--	--	--	15	2.80	-0.53	1.5523	3	3.33	-0.66	1.1547
BLENDING	--	--	--	--	--	--	--	--	3	3.00	3.00*	1.0000

*This result would have occurred by chance no more than five times in one hundred (p = .05 level).

The laboratory funded through the Title I project was managed by two English teachers (one full-time and one part-time) and a teacher assistant. The instructional intent was remedial; the teachers used a teacher/school developed method of instruction. Pupils in grade 10 were assigned to the laboratory. The program served twenty to twenty-two pupils per period, five days per week for the entire year.

Only the Comprehension subtest was administered to this group, with no statistically significant gains being registered.

The laboratory funded by Program 9581 was managed by a teacher certified in reading and a teacher aide. The instructional intents were remedial and developmental. The teacher used the High Intensity Learning System as prescribed. Pupils in grade 10 were assigned to the laboratory. The program served an average of thirty pupils per period, five days per week for an indefinite period of time.

The locally funded laboratory was managed by a teacher certified in English and a teacher assistant. The instructional intents were remedial and developmental. The teacher used the High Intensity Learning Syster as prescribed. Pupils in grades 11 and 12 were assigned to the laboratory. The program served seventeen to twenty pupils per period, five days per week for an indefinite period of time.

A significant gain was made on the Blending subtest.

Southridge Senior. The school was not in operation at the time the data were collected.

Miami MacArthur South. The pupils in the program did not participate in the pre and posttesting.

C.O.P.E. Center South. The participants scored in stanines 2 and 3 on the pre-test. Due to the indefinite assignments to the center, the pupils did not participate in the posttesting.

FOOTNOTES

1. It was anticipated that the phenomenon of regression to the mean might present a problem in interpreting the gain scores, i.e., the lowest scoring pupils would make gains and the highest scoring pupils would show a deficit. That this effect did not take place is apparent in (a) significant gains in occasional high pre-testers, (b) occasional losses in low pre-testers, (c) gains in some schools and losses in others, and (d) gains in some subtests and losses in others.

2. To compare the performance of students, the null hypothesis tested in this design was that the relative performance of the students would be the same on the pre-test and the posttest.